

REVISED 4/6/2010



Environmental Protection Agency

Fuel Economy Label – Phase 2 Focus Group Moderator Guide

Introduction (8 minutes)

- Moderator introduces herself/himself.
- [Explain:] A focus group is a group discussion where we can learn more in-depth about peoples' ideas and opinions (compared to telephone or written surveys).
- My job is to facilitate the discussion and make sure that everyone has an opportunity to speak **and to make sure that no one dominates the conversation.**
- Mention observers in separate room. Our discussion today is being recorded. These recordings allow us to write a more complete report, and to make sure we accurately reflect your opinions.
- Housekeeping – Toilets and refreshments.
- Mention ground rules:
 - There is no right or wrong answer; we're interested in your honest and candid opinions and ideas.
 - Our discussion is totally confidential. We will not use your name or contact information in any report.
 - Please only speak one at a time, so that the recorder can pick up all your comments.
 - It is important to tell YOUR thoughts, not what you think others will think, or what you think others want to hear.
 - Please turn off cell phones
 - Your stipend will be provided as you leave.
 - Relax and enjoy

Thank you all for participating in the survey we sent to you in advance. Today we will continue the discussion talking about new car purchases. Any questions before we begin?

- Let's start off by getting to know a little more about each other. I'd like us to go around the room with each person answering the following questions (Listed on poster chart):
 - Your first name
 - When did you buy your last new vehicle?
 - What make and model did you buy?
 - Did you consider buying a hybrid, or clean diesel, or some other alternative fuel vehicle?

Current Label Use (10 minutes)

1. What were the top two things that influenced your vehicle choice? Could I see a show of hands of those who considered fuel efficiency in the decision of which vehicle you chose to buy?

Are there other things that you haven't mentioned that would stop you from buying this vehicle that in all other ways meets your needs? (Listen for and probe on things like performance, attractiveness, 'cool factor', impact on the environment, etc.)

2. Did you use the fuel economy label when deciding on your new vehicle purchase? Why or why not? How did you use it? When in the vehicle choice process did you use it? (Handout copies of the existing fuel economy label) and ask what information on the label most influenced their purchasing decision.
3. What are some of the hybrid vehicles that are on the market today? If you look at these vehicles on a new car lot you will see that hybrid vehicles use the same fuel economy label as a conventional gasoline engine vehicle. (Handout copies of a Prius fuel economy label) Why is that? (Listen for their understanding of how hybrids work and then explain that:

(Handout copies and read the following statement)

A Gasoline hybrid uses gasoline to propel the vehicle. It can recoup some energy through regenerative braking. Does not plug in to charge the battery. Validate that they understand this.

Electric Vehicles (27 minutes)

Now we're going to talk about Electric Vehicles.

4. Are you aware of any totally electric vehicles that are on the market or that will be coming on the market? (Listen for Nissan Leaf.)

Read the following (Handout copies and read the following statement):

Electric Vehicles use electricity stored in batteries to propel the vehicle. The battery is charged by plugging it into an electrical outlet. This could be a standard electric outlet or a high voltage custom-installed charging station for more rapid charging. Like hybrid vehicles, some energy is recouped through regenerative braking. The vehicle travels until the charge is depleted or it is re-charged. There is no option to run it on gasoline.

5. If you were considering the purchase of an Electric Vehicle, what information do you want to see on the Fuel Economy Label? (Capture list on poster chart) Now let's identify the top two most important. (Listen for items such as range, fuel efficiency, fuel cost, and environmental impact.)
6. (Pass out a blank label template and puzzle pieces for EV) For the next couple minutes I'd like you to look at the list of elements on the poster chart that we discussed as well as



these potential label elements (puzzle pieces). Using only those that are important to **you** sketch or write down how you might design the label (Have the participants individually work on this for 3 minutes. If they are struggling with this move to the group discussion exercise).

Now let's work together to design a label for Electric Vehicles using the elements you each identified. (Utilize a large board that is a blank label with pre-created elements (the puzzle pieces) that can be stuck on the board – blank pieces will also be created for additional elements that the group identifies). Probe on use of City and Highway for some of the metrics, e.g., consumption, MPGe, range. There is likely to be a difference in these values across the two conditions.

- a. kwhr/100 miles (or another consumption measure)
 - b. miles per gallon equivalent - MPGe
 - If not mentioned, ask about a vehicle that gets 300 MPGe. Probe on:
 - What does MPGe mean to you?
 - Do you think this is useful considering an electric vehicle does not consume gallons? Why or Why not?
 - Should MPGe be on the label? Why or why not?
 - c. Fuel cost (Probe on annual, per month, weekly, cents per mile, cents per 100 miles.)
 - d. Range
 - e. Charging time
 - f. Info on how to charge
 - g. Environmental impact
7. Once label elements have been added, probe on the following:
- Does this give them the information they need?
 - Do they need all of this info?
 - Do they need additional info?

Ask client if they have any additional questions regarding Electric Vehicle discussion.

Extended Range Electric Vehicle (30 minutes)

Now we're going to talk about another type of vehicle that some refer to as an Extended Range Electric Vehicle.

(Handout copies and read the following statement. Leave the conventional vehicle label and just designed EV label showing for reference.)

An EREV has 2 modes of operation and can be plugged in to charge the battery.

1. *It uses wall electricity to propel the vehicle (like an EV) until the wall electricity is used up.*
2. *Once the stored wall electricity is used up, it runs like a gasoline hybrid, using gasoline to propel the vehicle with some regenerative braking.*

Important: daily driving distance can GREATLY affect amount of gasoline used. Can go all the way from zero gasoline (if shorter commutes and plenty of recharging) to entirely gasoline (if longer drives and no recharging) Validate that they understand this.



8. Are you aware of any Extended Range Electric Vehicles that are on the market or that will be coming on the market? (Listen for Chevy Volt.)
9. How can we better describe this? What should we call the two modes? (Write suggestions on poster chart. Listen and suggest the following if not mentioned – then get a show of hands vote on the most preferred and probe on why.)
 - Full Battery and Empty Battery
 - Electricity and Gasoline
 - All Electric and Gasoline
 - Charged and Discharged
 - Other?
10. If you were considering the purchase of an Extended Range Electric Vehicle, what information would you want to include on the Fuel Economy Label? (Refer back to list created for EV and ask them which of these they would want and to add others needed.) Now let's identify the top two most important. (Listen for items such as range, fuel efficiency, fuel cost, and environmental impact.)
11. Is it important to you to understand that some of these things will be different depending on the mode of operation? Why or why not? (Use 'Mode Teaching Tool' (blue example) as a handout to get them to see the impact of different mode configurations.)
12. (Pass out copies of the EREV puzzle pieces) Now let's work together to design a label for Extended Range Electric Vehicle using the elements you identified as well as the elements on the "puzzle pieces". (Utilize a large board that is a blank label with pre-created elements as listed below, that can be stuck on the board – blank pieces will also be created for additional elements that the group identifies).
 - a. Range
 - b. Fuel efficiency
 - c. Fuel cost
 - d. Environmental impact.
13. Once label elements have been added, probe on the following:
 - Does this give them the information they need?
 - Do they need all of this info?
 - Do they need additional info?
 - Do they need City and Highway, even if values are close? (Recognize impact of wanting City and Highway on quantity of information.)
14. Driving distance has huge impact on most of the numbers you placed on the label—does that matter in your vehicle choice or in understanding the label?
(Look at Mode Teaching Tool with merged info) Is this helpful? Why or why not?

Ask client if they have any additional questions about Extended Range Electric Vehicles.

PHEV Vehicles (25 minutes)

Now we're going to talk about a label for what is known as a Plug In Hybrid Electric Vehicle, also referred to as PHEVs.

(Handout copies and read the following statement).

A PHEV has 2 modes of operation and can be plugged in to charge the battery.

1. *It uses wall electricity intermingled with some gasoline to propel the vehicle until the wall electricity is used up.*
2. *Once the stored wall electricity is used up, it runs like a gasoline hybrid, using gasoline to propel the vehicle with some regenerative braking.*

Important: daily driving distance can GREATLY affect amount of gasoline used. Validate that they understand this. (Refer to Mode Teaching Tool for example)

15. Are you aware of any Plug In Hybrid Electric Vehicles that are on the market or that will be coming on the market? (Listen for Prius PHEV.)
16. How can we better describe this? What should we call the two modes of operation in a PHEV? (Write the following on poster chart and add others that they suggest – then get a show of hands vote on the most preferred and probe on why.)
 - Full Battery and Empty Battery
 - Electricity and Gasoline
 - Mostly Electric (with some gasoline) and Gasoline
 - Charged and Discharged
17. If you were looking considering the purchase of a Plug-In Hybrid Electric Vehicle, what information do you want to include on the Fuel Economy Label? (Refer back to list created for EV and EREV and ask them which of these they would want and to add others needed to either add others needed.) Now let's identify the top two most important. (Listen for items such as range, fuel efficiency, fuel cost, and environmental impact.)
18. (Pass out copies of the PHEV puzzle pieces) Now let's work together to design a label for just the electric mode (since gas operation is identical to EREV) of a Blended Plug in Hybrid Electric Vehicle using the elements you identified as well as the elements on the "puzzle pieces" (Utilize a large board that is a blank label with pre-created elements as listed below, that can be stuck on the board – blank pieces will also be created for additional elements that the group identifies).
 - a. Range
 - b. Fuel efficiency
 - c. Fuel cost
 - d. Environmental impact
19. Once label elements have been added, probe on the following:
 - Does this give them the information they need?
 - Do they need all of this info?
 - Do they need additional info?

(Note: this section is particularly tricky and where we most need to get input—the balance between providing enough info so that people can make the right choice for their driving needs and making it understandable is our greatest challenge. It will be important to make sure they know, if they tend toward simple, what they are giving up—and probe on whether that matters to them or not. Refer to their list of potential elements as a discussion guide in probing this area)

Ask client if they have any additional questions about PHEVs.

Comparison Across Vehicle Types (15 minutes)

20. Is it important to be able to compare across these different types of vehicles, meaning conventional, electric, extended range electric, plug-in hybrid electric vehicles? Why or why not? Or is it more important to have a label that explains in more detail how a particular type of vehicle works?
21. Is there a particular element of these labels that would allow you to compare all the different types of vehicles as part of your decision process? What would that be? (Probe on fuel cost and fuel consumption.)
22. In order to compare across vehicle types would it help to merge some of this information for vehicles that have two modes of operation? Or is it better to keep these separate?

For total cost:

- Do the “bookends” of all-electric and all-gasoline numbers give enough info? Why or why not? Or do you want us to make some assumptions about what percentage of time you will drive in each mode of operation and merge that to come up with a blended number? (show examples here of actual bookend and blended numbers)
 - Electric mode annual cost - \$618
 - Gasoline mode annual cost - \$1,194
 - Merged annual cost - \$889

For energy/fuel consumption:

- Do the “bookends” of all-electric and all-gasoline numbers give enough info? Why or why not? Or, do you want us to make some assumptions about what percentage of time you will drive in each mode of operation and merge that to come up with a blended number? (show examples here of actual bookend and blended numbers)
 - Electric mode – 98 MPGe
 - Gasoline mode – 38 MPG
 - Merged – 56 MPGe

23. Should the current label for gasoline vehicles be revised to make it easier to compare with the labels for these other kinds of vehicles? Why or why not?

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Wrap-Up (5 minutes)

24. Is there information that we have not discussed today that would influence you to choose a fuel efficient vehicle?
25. Anything else you would like our clients to know about your thoughts about fuel economy labels?